

WE CLAIM:

~~1. A pharmaceutical composition comprising:  
 an effective amount of an active ingredient that is  
 5 metabolized by 5 $\alpha$ -reductase,  
 a water insoluble, water-swellaable cross-linked  
 A<sup>2</sup> polycarboxylic polymer, and  
 a water soluble polymer,  
 wherein said composition is formulated to deliver said  
 10 active ingredient to the bloodstream of a mammal through a  
 mucosal surface of the mammal.~~

*Obvious*  
 2. The composition of claim 1, wherein said active  
 ingredient is present in about 50% by weight or less.

15 ~~3. The composition of claim 1, wherein said active  
 ingredient is testosterone or progesterone.~~

*Perforic*  
 20 ~~4. The composition of claim 3, wherein said  
 composition is formulated to deliver said active ingredient  
 via the mammal's vaginal cavity.~~

*[*  
 25 ~~5. The composition of claim 3, wherein said  
 composition is formulated to deliver said active ingredient  
 via the mammal's buccal cavity.~~

*A3*  
 30 ~~6. The composition of claim 3, wherein said active  
 ingredient is testosterone and said testosterone is present  
 in an amount of about 1% to about 30% by weight.~~

*30  
 31  
 32*  
 35 ~~7. A method of delivering to a mammal an active  
 ingredient that is metabolized by 5 $\alpha$ -reductase, comprising  
 administering said active ingredient via a progressive~~

hydration bioadhesive composition through a mucosal surface of the mammal.

8. The method of claim 7, wherein the composition comprises:

a water insoluble, water-swellaable cross-linked polycarboxylic polymer,

a water soluble polymer, and  
said active ingredient.

9. The method of claim 8, wherein said active ingredient is testosterone or progesterone.

10. The method of claim 9, wherein said active ingredient is testosterone, and said method provides a blood serum concentration ratio of testosterone to 5 $\alpha$ -dihydrotestosterone (DHT) of about 10 to 1 or greater in the bloodstream of said mammal.

11. A composition for delivering to the bloodstream of a mammal an active ingredient that is metabolized by 5 $\alpha$ -reductase, comprising:

a water insoluble cross-linked polycarboxylic polymer, and

a water soluble polymer,  
wherein said composition is formulated to deliver said active ingredient through a mucosal surface of the mammal.

12. The composition of claim 11, wherein said active ingredient is testosterone or progesterone.

6, 13. The composition of claim 12, wherein said active ingredient is testosterone and said testosterone is present in an amount of about 1% to about 30% by weight.

5 14. The composition of claim 13, wherein said composition is formulated to provide a blood serum concentration ratio of testosterone to 5 $\alpha$ -dihydrotestosterone (DHT) of about 10 to 1 or greater in the bloodstream, of said mammal.

10 11, 15. The composition of claim 11, wherein said composition is formulated to deliver said active ingredient via the mammal's nasal cavity.

15 11, 16. The composition of claim 11, wherein said composition is formulated to deliver said active ingredient via the mammal's rectal cavity.

add B<sub>3</sub>

add F<sub>1</sub>